

Zero Waste Community Meeting March 12th, 2009





Envision a world without waste

Garbage without Guilt

Assembly Bill 939

Alameda County Measure D

Local Action Plan for Climate Protection

Assembly Bill 32

25% diversion by 1995

50% diversion by 2000

75% diversion by 2010

Reduce GHG emissions to 25% below 2005 levels by 2025

Reduce GHG emissions to 1990 levels by 2020 Reduce to 80% below 1990 levels by 2050

Alameda Firsts

- Three collection cart program 1997
- Food scrap diversion 2002
- Comprehensive construction and demolition recycling requirements 2002
- Climate Protection Local Action Plan 2008
- Ban on polystyrene to-go containers 2008
- 48% diversion 1995
- 65% diversion 2000
- 68% diversion 2005







Zero Waste and Climate Change

Landfills

- Create carbon dioxide and methane
- Account for 25% of U.S. methane emissions
- Methane is 21 x more potent than carbon dioxide
- Waste prevention, recycling and composting
 - Save energy
 - Divert materials from landfills
 - Reduce greenhouse gas emissions
- Recycling & composting all discards = eliminating all auto exhaust

The Link Between Waste Management and Greenhouse Gases

Greenhouse gases are emitted during the harvesting of trees, and the extraction and transport of raw materials.

Extraction



Waste prevention and recycling delay the need to extract some raw materials, lowering greenhouse gases emitted during extraction.

Manufacturing products releases greenhouse gases during processing and as energy is expended during product use.

Manufacturing



Waste prevention means more efficient resource use, and making products from recycled materials requires less energy. Both lower greenhouse gases emitted during manufacturing.

Burning some kinds of waste in an incinerator increases greenhouse gas emissions.

Combustion



Waste prevention and recycling reduce the amount of waste sent to incinerators, lowering the greenhouse gases emitted during combustion.

Increased GHG Emissions

Greenhouse gases are emitted as waste decomposes in landfills.

Landfilling

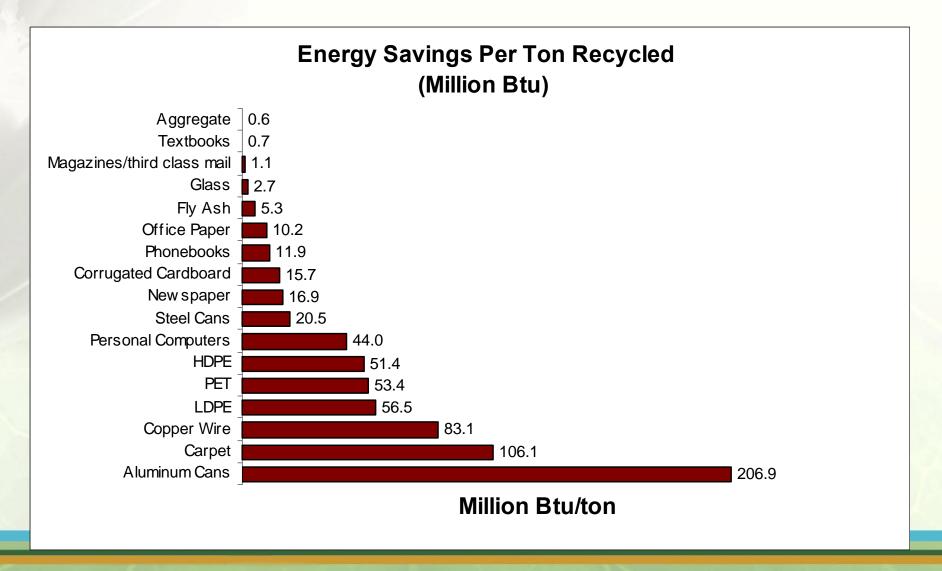


Waste prevention and recycling reduce the amount of waste sent to landfills, lowering the greenhouse gases emitted during decomposition.

Decreased GHG Emissions

Source: Henry Ferland U.S. EPA Slide: Judith Friedman Cal EPA

Energy Savings from Recycling



Source: Henry Ferland U.S. EPA

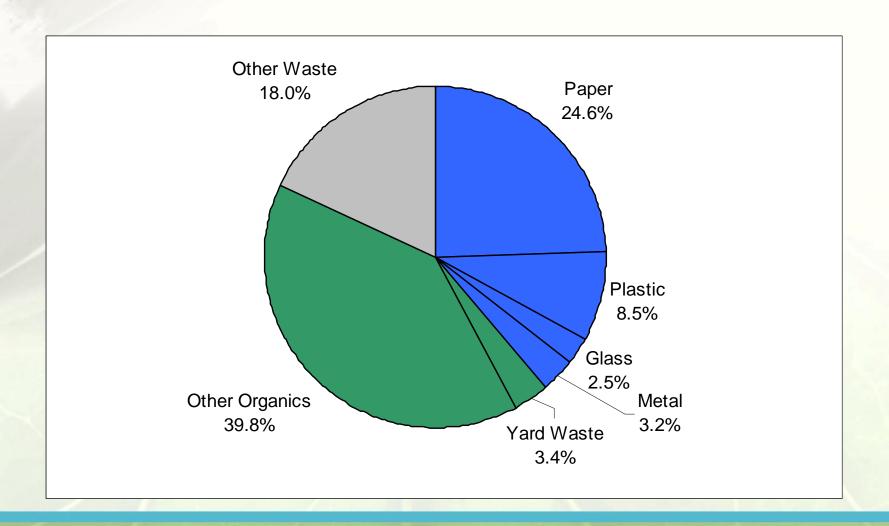
Slide: Judith Friedman Cal EPA

City of Alameda GHG Reduction Analysis



most effective GHG reduction potential

Opportunities in the Supply Stream



Source: Alameda County Waste Characterization Study 2000

New study currently underway!

Problem Materials

Materials that don't have markets

- Composite materials (things stuck to other things)
- Treated wood
- Some plastics
- Diapers
- Hazardous materials and some electronics
- Some plastic bags + films









Potentially Recyclable Materials

Materials that don't have vibrant markets

- Hardback books
- Window glass
- Some plastics
- Textiles
- Asphalt roofing
- Clean gypsum board









What is Zero Waste?

Zero Waste

- Recognizes that "waste" is not inevitable
- Discarded materials are potentially valuable resources
- Goes beyond "end of the line" strategies
- Maximizes recycling and composting
- Reduces consumption
- Designs "waste" out of the system

Paradigm Shift

 Recyclables used to be what we kept out of the trash



 Now trash is what we have leftover after we reuse, recycle and compost



Pieces of Zero



- Multi-material
- As convenient as trash
- Available to all generators

Organics diversion

- Yard trimmings
- Food scraps
- Compostable paper

C&D diversion

- Generator-based
- Hauler-based
- Facility-based

Zero Waste Policies

- "New rules"
- Disposal bans
- Mandatory recycling
- Product stewardship
- Comprehensive outreach and technical assistance

Zero Waste Infrastructure

- Neighborhood scale
- Reuse and recycling
- Materials recovery
- C&D processing
- Organics processing

Residual Waste Management

- Residual waste processing
- Residual waste disposal

Zero Waste Around the World



All of us together can make ZERO



Reduce Reuse Recycle Tero Waste

Zero Waste Communities Around the World

- Canberra, Australia
- New Zealand (Entire Country)
 - Plus over 50 percent of New Zealand cities
- Buenos Aires, Argentina
- Seattle, Washington
- Boulder County, Colorado
- Summit County, Colorado
- Central Vermont Waste Management District
- New York City
 - (Citizens Zero Waste Plan)

- Halifax, Nova Scotia
- Toronto, Ontario
- Nelson, British Columbia
- Regional Districts, British Columbia
 - Kootenay Boundary
 - Central Kootenay
 - Nelson
 - Cowichan Valley
 - Sunshine Coast
- Smithers, British Columbia
- Nanaimo, British Columbia

Zero Waste Communities in California

- State Strategic Plan
- Rancho Cucomonga
- Culver City
 - Sustainability Plan
- El Cajon
- Fresno
- Burbank informally
- San Bernardino County Zero Waste Communities
 - informally
- San Luis Obispo County
- Del Norte County

- San Francisco
- Oakland
- Santa Cruz County
 - Plus all cities in the County
- Berkeley
- Palo Alto
- Marin County
- Novato
- Fairfax
- San Jose
- Sonoma County
- Los Angeles
- and....Alameda!

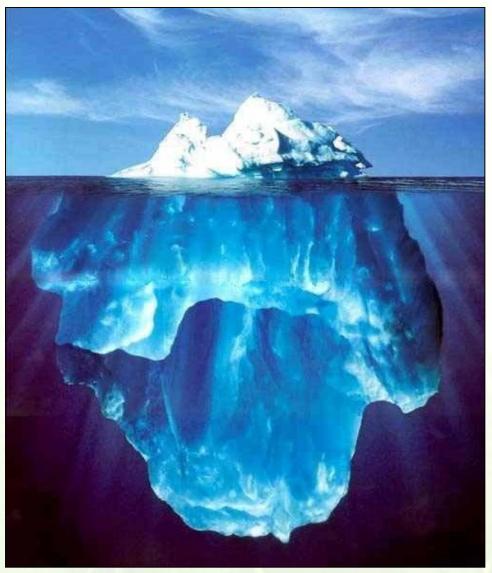
Zero Waste Businesses are Leading the Way

- Anheuser-Busch
- Apple Computer
- Epson
- Fetzer Vineyards
- Frankie's Bohemian Café
- Greens Restaurant
- Hewlett-Packard
- Mad River Brewery
- New Belgium Brewery

- NUMMI
- Pillsbury
- Playa Vista
- San Diego Wild Animal Park
- Scoma's Restaurant
- Vons-Safeway
- Xerox Corp
- Yost Printer

Businesses achieving greater than 90% waste diversion

Tackling the "Wasteberg"



71 Tons Upstream Waste per Ton of Municipal Solid Waste

Pillars of Zero Waste



Upstream



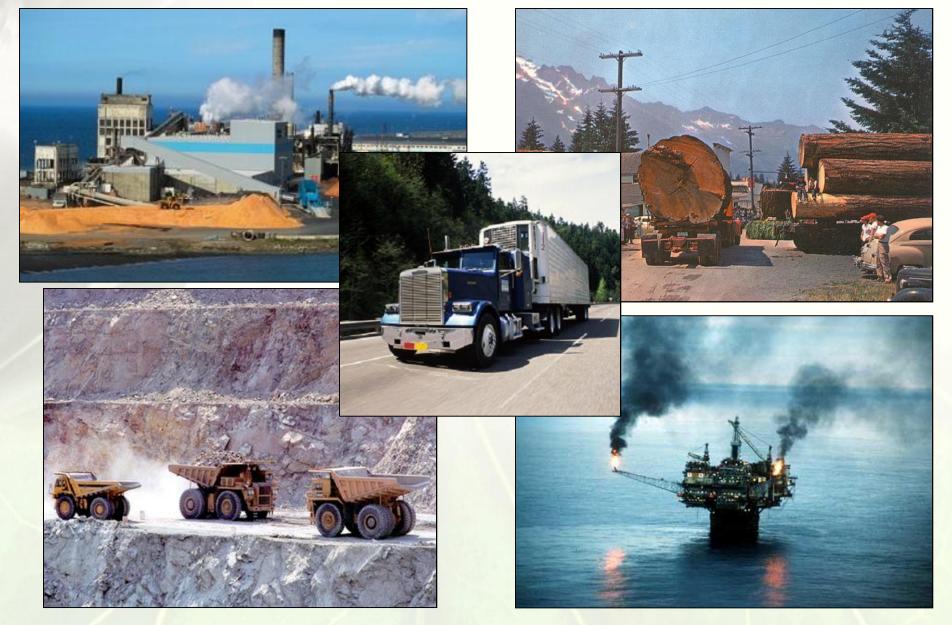
Downstream



Green Businesses and Jobs



Upstream = 71 x Municipal Solid Waste

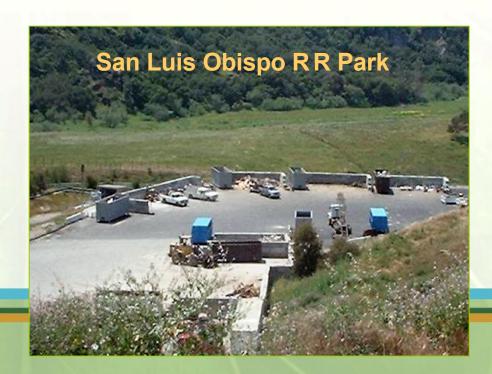




- Ensure the highest and best use of products and packaging at the end of their useful lives
- Reuse products and packaging, retaining their original form and function
- Recycle or compost materials that are not reduced or reused

Resource Recovery Parks

- Reuse, Recycling, Composting, Manufacturing and Sales
- Like Airports or Shopping Centers
- Drop and Shop Convenience for Public
- Lower Waste Fees
- Buy at Discounts





Green Businesses and Jobs

- Expand, attract, and support green businesses and green collar jobs
- Reserve sufficient land for Zero Waste infrastructure
- Buy green goods and services
- Recycling Industry = Size of Auto Industry

10,000 tons of Sold Waste =

- Landfill 1 job
- Composting 4 jobs
- Recycling 10 jobs
- Reuse 75 to 250 jobs



Zero Waste Plan Schedule

- March 12th Workshops
 - Identify opportunities, issues and constraints
- April 25th Sustainable Living Symposium at Earth Day Festival in Washington Park
 - Input on policies and programs
 - Guest speakers
 - Film festival
- June 11th Workshops
 - Results of analysis of
 - Policies and programs
 - Service opportunities
 - Economics
 - Input on zero waste implementation plan